

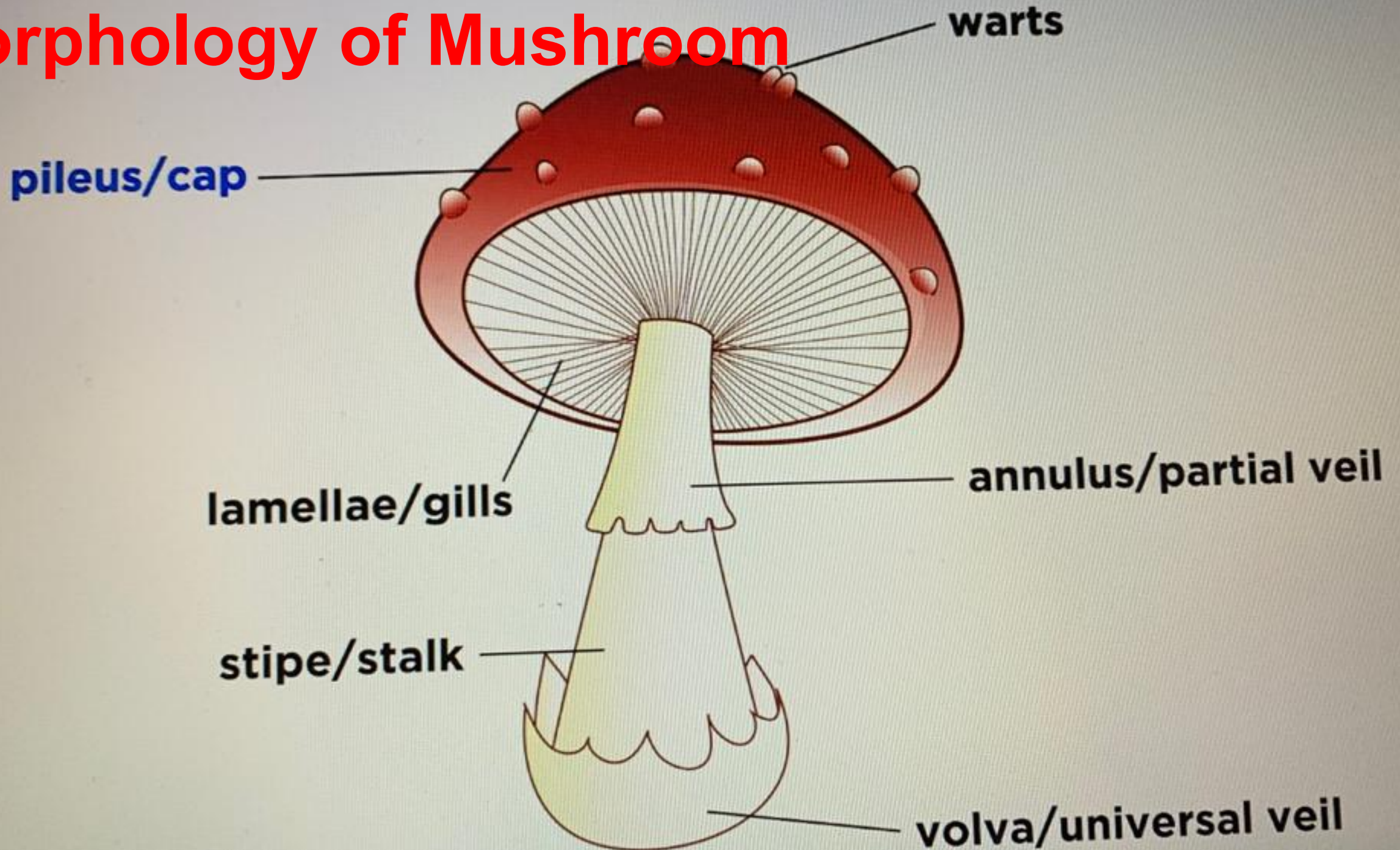


Potential of wild mushroom



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Morphology of Mushroom





1

Fruiting body sheds spores (reproductive cells)

2

Spores germinate (begin to grow)



3

Mycelium (branching cells) form



4

Fruiting body forms



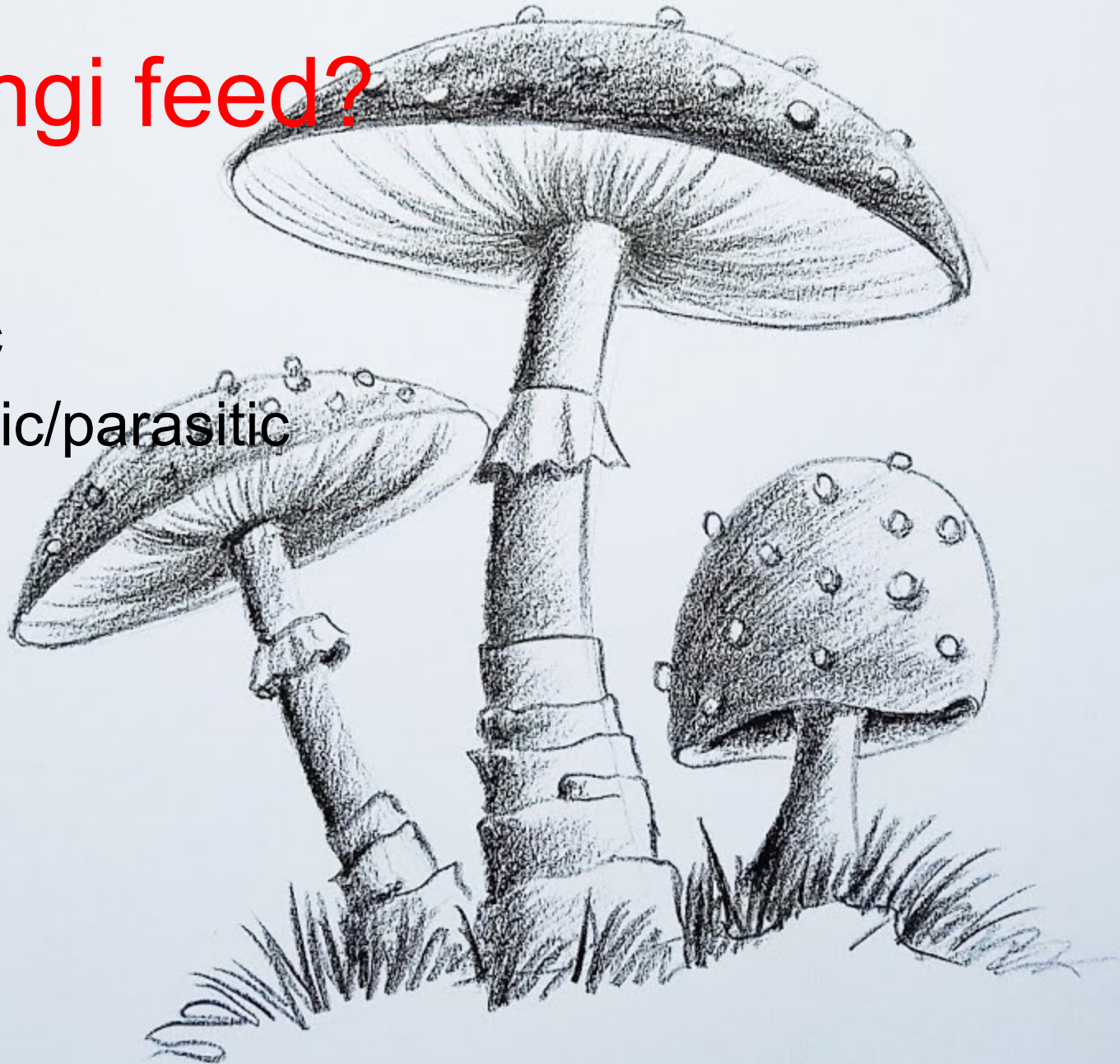
5

Body matures

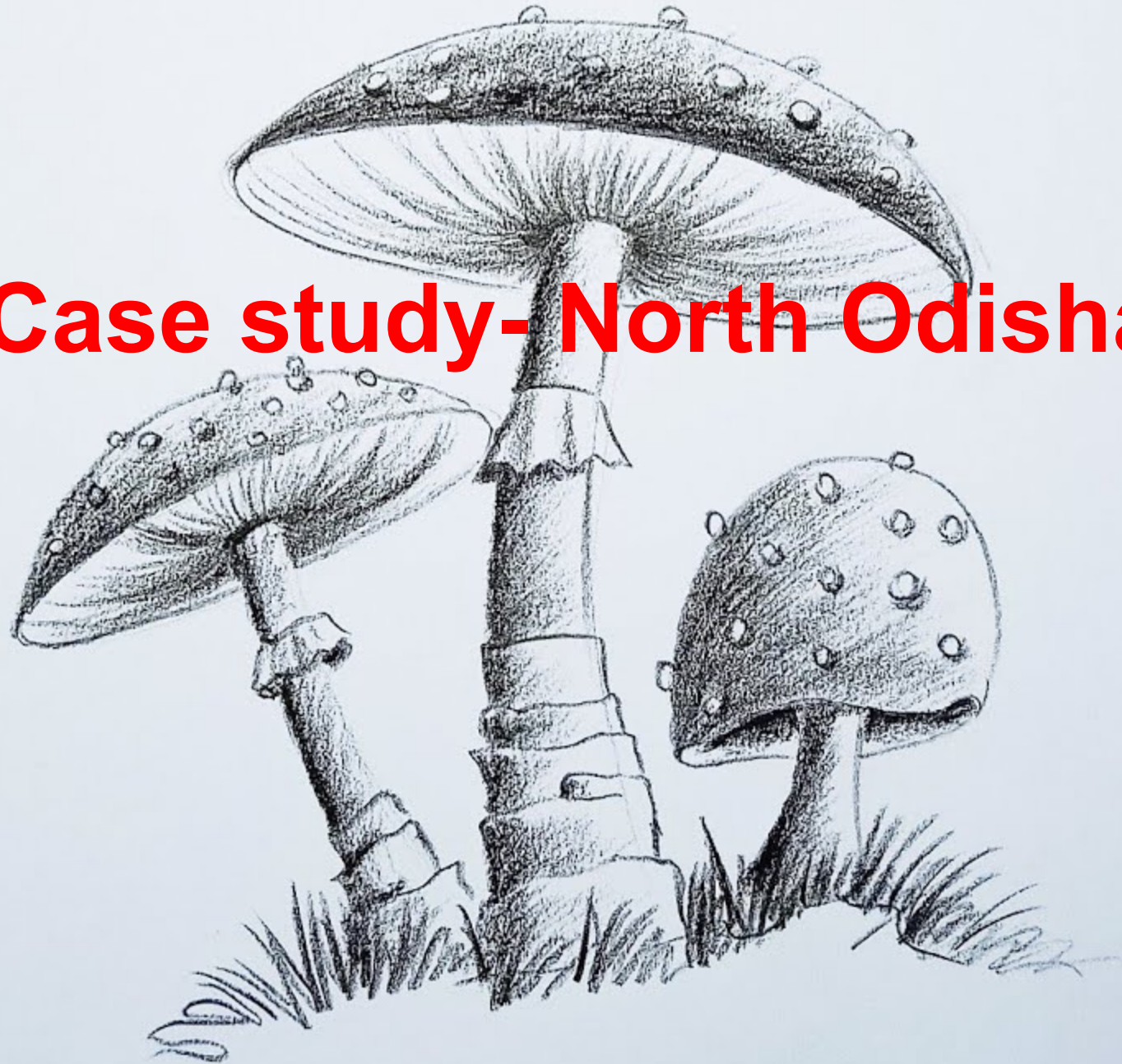


How fungi feed?

1. Saprobic
2. Symbiotic
3. Pathogenic/parasitic



Case study- North Odisha



Mushroom diversity



Russula rosea



Russula delica



Russula densifolia



Russula voleipes





Russula cyanoxantha

Russula virescens

Termitomyces heimii

Termitomyces microcarpus





Termitomyces eurhizus



Amanita hemibapha



Amanita egregia





***Tubber* sp.**

***Gaestrum* sp.**

***Astraeus*
*hygrometricus***

***Lycoperdon*
*pyriforme***





Calvatia gigantea

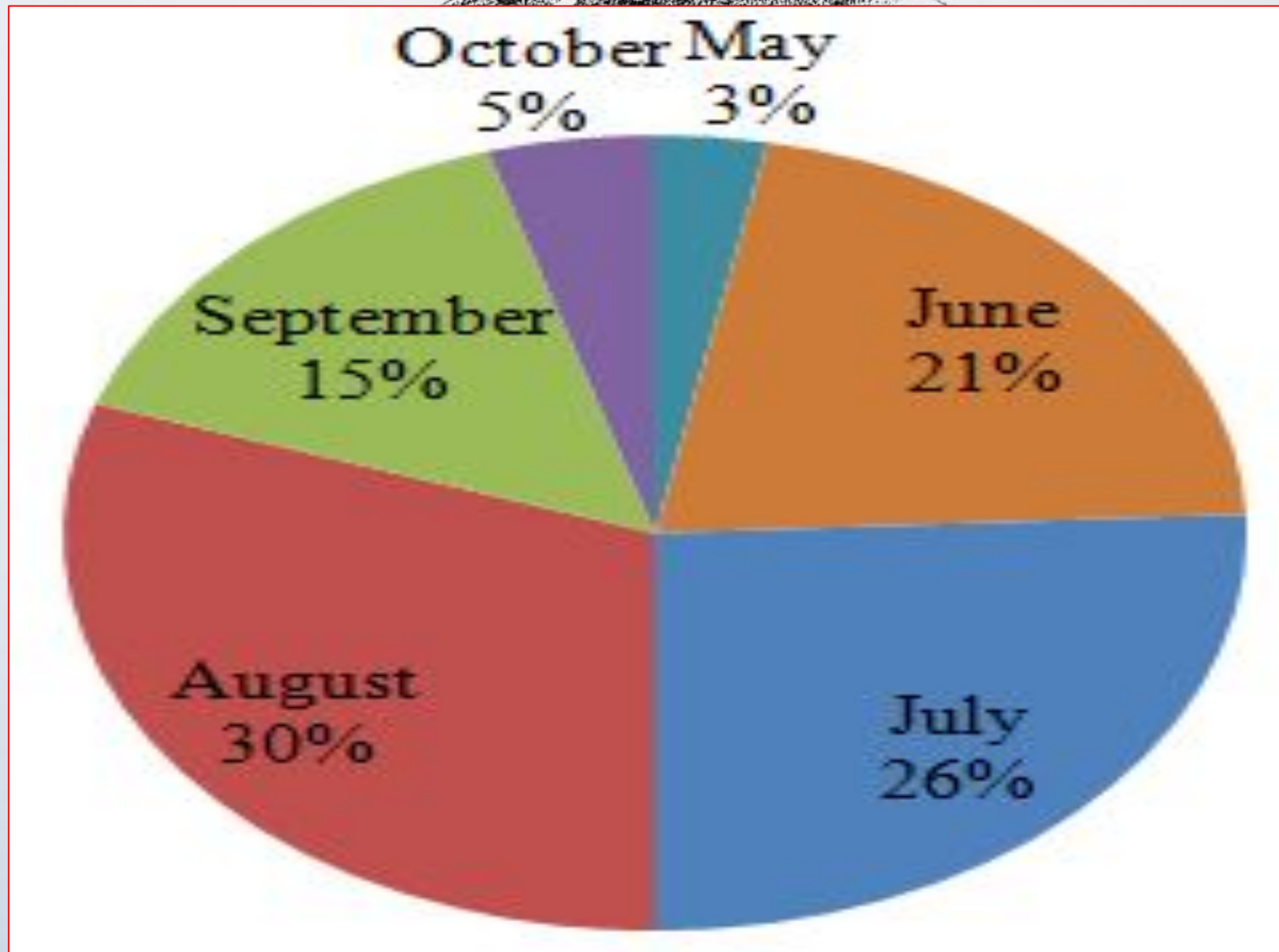
***Volvariella
volvacea***

***Lentinus
sajor-caju***

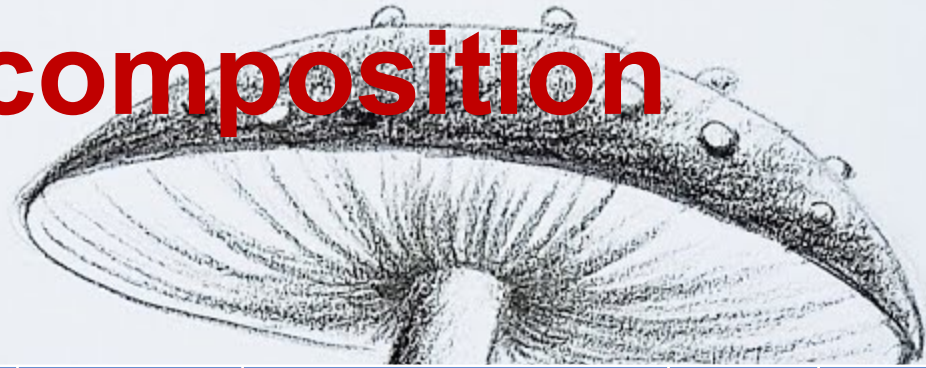
Pleurotus florida



Occurrence of wild edible mushroom



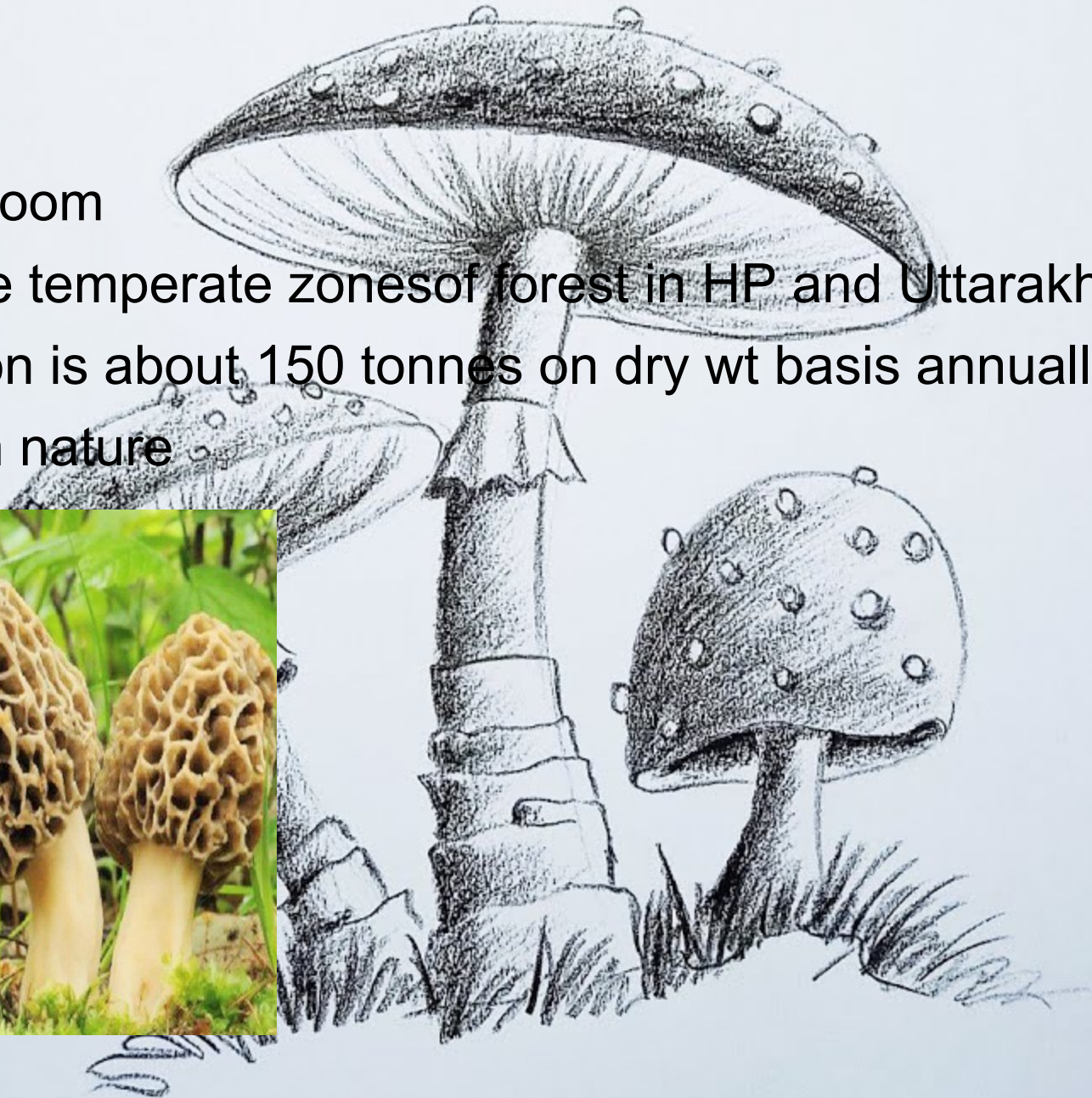
Nutritional composition



Species	Protein	Carbohydrates	Fats	Ash	Fibre
<i>Agaricus arvensis</i>	32.87	32.91	--	0.18	0.14
<i>Calvatia gigantea</i>	41.06	28.38	2.12	7.9	18.23
<i>Pleurotus florida</i>	27.83	32.08	1.54	9.41	23.18
<i>Russula delica</i>	26.25	34.88	5.38	17.92	15.42
<i>Termitomyces microcarpus</i>	29.4	46.53	2.33	11.2	11.5

Morels

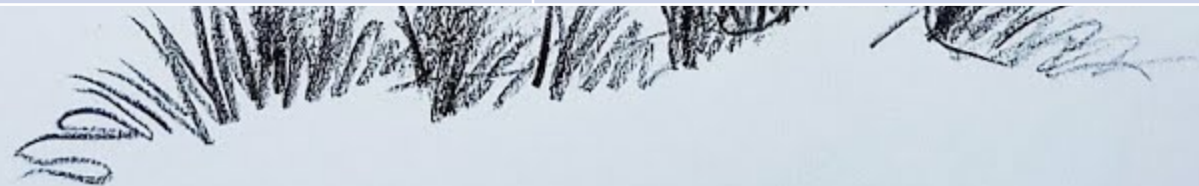
- Sponge mushroom
- Common in the temperate zones of forest in HP and Uttarakhand
- Total production is about 150 tonnes on dry wt basis annually
- Saprophytic in nature



Species of *Morchella*



Species	Habitat
<i>Morchella semilibera</i>	On the ground in oak or beech woods and usually fruiting about a week before the large morels appear
<i>Morchella angusticeps</i> (Black morel)	On sandy soils in woods. Widely distributed and often associated with <i>Populus</i> spp.
<i>Morchella deliciosa</i> (Delicious morel)	On the ground of in grassy places, usually at the edge of woods. Widely distributed but rare
<i>Morchella esculenta</i>	Usually in or near lightly burned grassy areas and swampy ground
<i>Morchella conica</i> (White morel)	On soil, in open forest, often a year or two after a forest fire

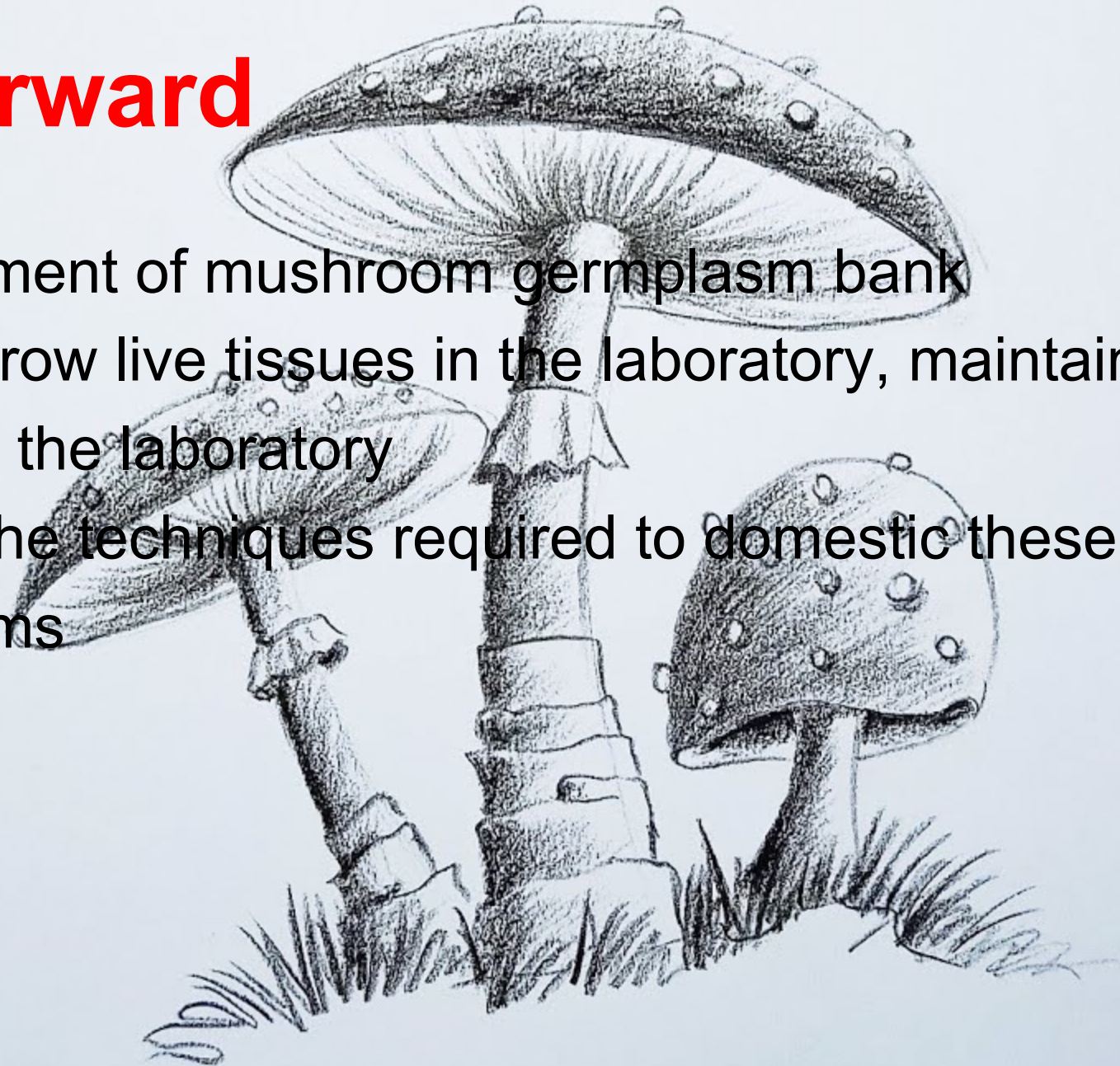


Cordyceps



Way forward

- ✓ Establishment of mushroom germplasm bank
- ✓ Need to grow live tissues in the laboratory, maintain these tissues in the laboratory
- ✓ Develop the techniques required to domesticate these mushrooms





THANK YOU